

Specifications of Low-pressure Gas Fuelled Engines

Amended Rules and Guidance

Rules for the Survey and Construction of Steel Ships Part D

Rules for High Speed Craft

Rules for the Survey and Construction of Inland Waterway Ships

Guidance for the Survey and Construction of Steel Ships Parts B, D, GF, H, and N

Guidance for High Speed Craft

Guidance for the Survey and Construction of Inland Waterway Ships

Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use

Reason for Amendment

IACS Unified Requirement (UR) M59 specifies requirements related to dual fuel engines, which can use both oil and high pressure gas as fuel. However, there are no UR specifically developed to apply to engines using low pressure gas as fuel expected to be widely used in LNG carriers and other type of ships.

For this reason, IACS adopted IACS UR M78 which specifies requirements related to the design, testing, etc. for engines using low pressure gas as fuel so as to enhance the safety of such engines.

Accordingly, relevant requirements were amended in accordance with UR M78.

Outline of Amendment

The main contents of the amendments are as follows:

- (1) Specified the criteria for low pressure gas-fuelled engines treated as the same type of engine.
- (2) Specified that risk analysis is to be performed for low pressure gas-fuelled engines. In addition, specified the range, process, scope, etc. of the risk analysis.
- (3) Specified design requirements for the crankcases, charge air systems, fuel piping, etc. of low pressure gas-fuelled engines. In addition, specified design requirements for each kind of engine (dual fuel engines, gas only engines, etc.).
- (4) Specified the measurement items, test methods, etc. for tests for approval of use, shop tests, and sea trials, which are performed for low pressure gas-fuelled engines.

Amended Requirements

Rules for the Survey and Construction of Steel Ships

Part D: 2.1.1, 2.1.2

Rules for High Speed Craft Part 9 2.1.1

Rules for the Survey and Construction of Inland Waterway Ships Part 7 2.1.1

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Part B: B2.3.1

Part D: D2.1.1, D2.1.2, D2.6.1

Part GF: Annex3 1.1, 1.3, 4.1, 4.2.2, Annex4 1.1, 1.3, 1.4(Added), 2.1, 2.2.3(Added), 2.2.4(Added), 2.3, 2.4, 2.5(Added), Title of Chapter 3, 3.1, Table 3.1, 3.2, 4.1, 4.2.2

Part H: H2.4.2

Part N: Annex3 1.1, 1.3, 5.1, 5.2.2, Annex4 1.1, 1.3, 1.4(Added), 2.1, 2.2.3(Added), 2.2.4(Added), 2.3, 2.4, 2.5(Added), 4.1, Tabel 4.1, 4.2, 5.1, 5.2.2

Guidance for High Speed Craft Part 2 2.3.1, Part 9 2.1.1

Guidance for the Survey and Construction of Inland Waterway Ships Part 2 2.3.1, Part 7 2.1.1

Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use Part 6 Title of Chapter 8, 8.1.1, 8.1.2, 8.2.2, 8.3, 8.4, 8.5, 8.6(Added)